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**U.S. DEPARTMENT OF AGRICULTURE**

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CURRENT SERIAL RECORDS

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## HOW THE DUAL GRADING SYSTEM FOR BEEF IS APPLIED TO CATTLE AND BEEF CARCASSES

The dual grading system is a new concept in beef grading, becoming available on a trial basis, July 1, 1962. It represents a major step toward a more accurate and precise identification of the factors relating to value in beef. It is administered by the Livestock Division of USDA's Agricultural Marketing Service.

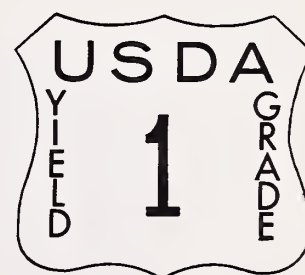
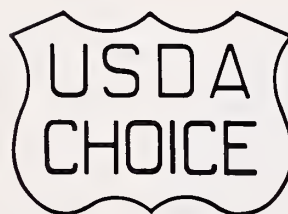


N-28254--This Federal meat grader -- there are 485 of them stationed throughout the country -- is applying the familiar roller stamp of USDA quality grades to a beef carcass. He will use another stamp to apply the "cutability" numerical grade to each quarter. Both stamps are kept under lock and key except when they are being used by the Federal grader.

The service is available to members of the trade who wish to use it and pay for it on a fee basis. The current Federal meat grading system continues to be offered on the same basis.

These photographs show how the dual grading system works by providing separate grades for two of the main factors that determine the value of a beef carcass:

1. the quality, or palatability, of the lean meat;
2. the amount of trimmed retail cuts from the carcass.



BN-16006---The quality grade of dual graded beef will be identified by a ribbon-type imprint of the quality name just as it is now. The cutability grade will be stamped on each quarter of the carcass. Both will appear in red ink. However, the cutability grade, mainly of interest to the trade, will not necessarily show up on retail cuts as the quality grades do.

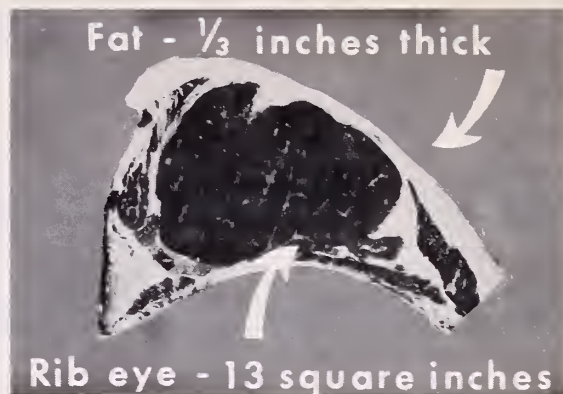




BN-12406X

BN-12404X

This is the story of two steers. Both steers graded U.S. Choice, weighed 1150 pounds, and brought the owner the same price. But the carcass from the "meat-type" steer in the picture above will be worth more to the retailer. Why? It will yield a higher percentage of high quality boneless cuts from rib, round, loin and chuck. It will yield less fat.



BN-16007

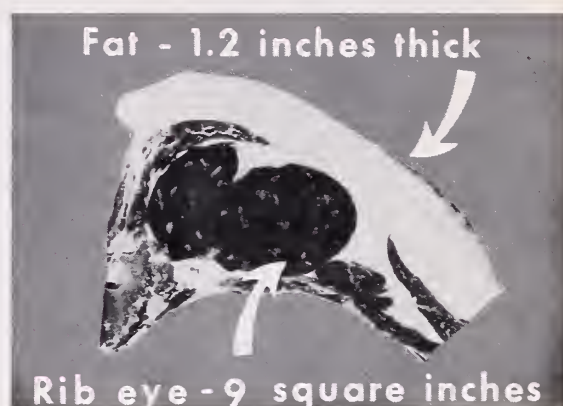
Here is the rib eye from the "meat-type" steer. Notice that the fat covering is only 1/3 of an inch thick. And how large the rib eye is -- 13 square inches! Look how much more lean meat there is in this cut than in the cut in Picture BN-16008 below. This rated Yield Grade No. 2.



BN-12407X

BN-12405X

This over-finished steer produces high quality beef, but yields less meat, and more fat than the "meat-type" steer shown in BN-12406X and BN-12404X above. This animal has a thick fat covering, full flank, wasty brisket, and in comparison with the "meat-type" steer above, has less firm finish, thinner muscling.

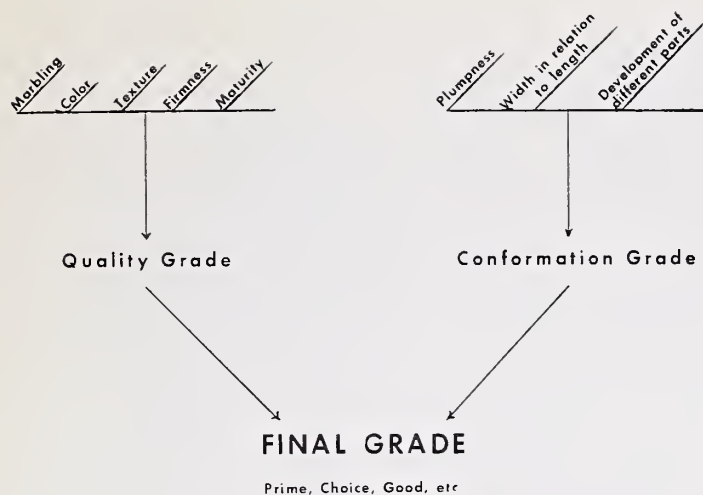


BN-16008

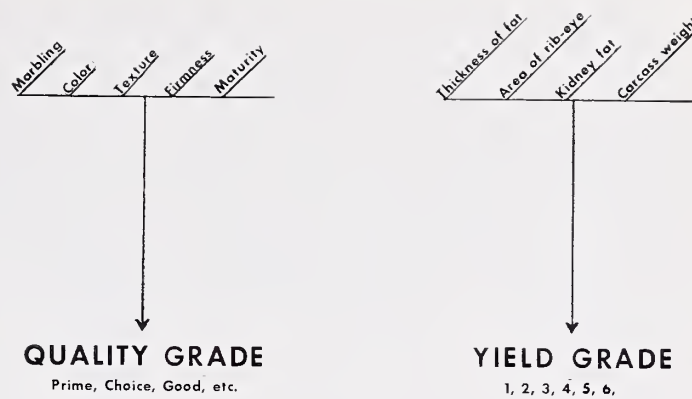
This is the rib eye from the over-finished steer. Notice that the fat covering is 1.2 inches thick -- four times larger than that of the rib eye shown in Picture BN-16007 above. And the rib eye is smaller -- only 9 square inches. This rated Yield Grade No. 6.

It is easy to see from this set of pictures that the carcass from the "meat-type" steer would be worth \$8 to \$10 more per hundredweight to the retailer. Dual grading recognizes this value by a more accurate and precise identification of the yield of trimmed retail cuts from the carcass.

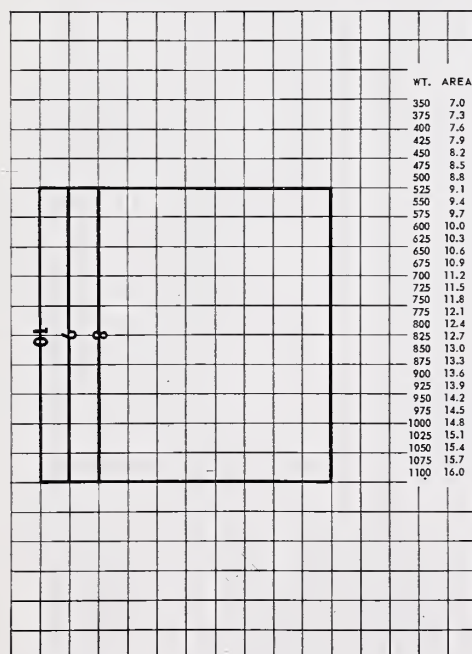
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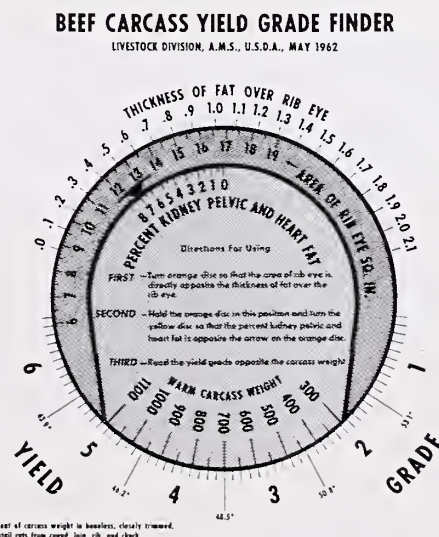
BN-16009---This chart shows how the two evaluations of quality and conformation are used to determine the final grades such as USDA Prime, USDA Choice, USDA Good, etc., as used in the current beef grading system. However, since quality and conformation are not perfectly correlated in most carcasses, some compromise must be made in combining them into a single grade. And this makes the grades less precise than they could be were this compromise not necessary.



BN-16010---This chart illustrates how dual grading eliminates this compromise approach to grading by giving separate identification to quality and to yield. Quality is still judged on the basis of marbling, color, texture, firmness, and maturity. But conformation is not considered in determining this quality grade. It is instead -- at least insofar as conformation is indicated by the area of the rib eye -- one of the four factors used in determining the yield grade. Cutability differences are reflected by six yield grades.



BN-16011---Researchers have devised this grid to measure the rib eye. With it the Federal meat grader can quickly and accurately compute the area of the rib eye.



BN-16012---The yield grade finder is another device that the AMS Livestock Division has developed to combine the four yield grade characteristics into the cutability grade.

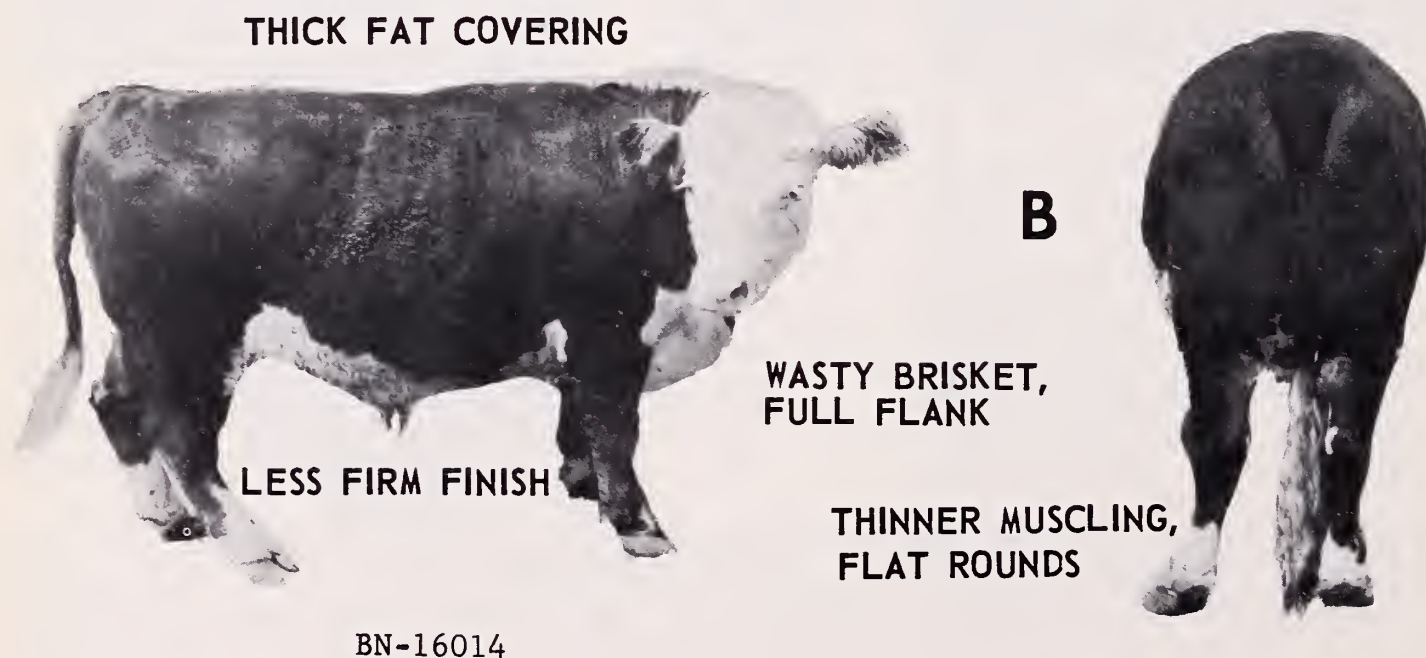




Can yield grades or cutability of the carcass be estimated in live animals?

More accurately than the present grades, says USDA. This pair of pictures shows how cutability differences can be recognized in live cattle.

Steer "A" has (1) thick muscling over the back, bulging rounds; (2) thin fat covering; (3) trim brisket; and (4) firm finish. This is the much sought after "meat-type" steer, the thick-muscled kind which produces a high yield of superior quality meat without depositing a heavy layer of fat over the outside.



Steer "B" has (1) thinner muscling, flat rounds; (2) thick fat covering; (3) wasty brisket, full flank; and (4) less firm finish. This over-finished steer produces high quality beef but yields less retail cuts and more fat than the "meat-type" steer.